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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,618	11/07/2003	Toyoji Gushima	P24532	8502

7055 7590 10/05/2006

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EXAMINER	
RIVERO, MINERVA	

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 10/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/702,618	GUSHIMA ET AL.	
	Examiner	Art Unit	
	Minerva Rivero	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Ichikawa *et al.* (US 5,793,724), hereinafter Ichikawa.

4. Regarding claims 1, 7 and 10, Ichikawa discloses a playback method for a recording medium to which data is recorded in block units containing multiple fixed-length frames together with block address information, the playback method comprising steps of:

acquiring the data and the block address information from the recording medium (Col. 1, Lines 43-45);

predicting the recording position of each frame in a block from the acquired block address information (Col. 4, Lines 42-50);

synchronizing to the frame level based on the acquired data (Col. 4, Lines 45-50);

determining the memory address for storing the data acquired based on the predicted recording position (Col. 4, Lines 44-46); and

storing the acquired data at the determined memory address (Col. 4, Lines 44-46).

5. Regarding claims 2 and 8, Ichikawa discloses determining whether synchronization at the frame unit has been established (Col. 4, Lines 27-36; Col. 14, Line 47-67 – Col. 15, Line 13, see Fig. 23; Col. 17, Lines 19-24); and

detecting whether synchronization at the frame unit has been restored if frame synchronization goes out-of-step (Col. 14, Line 47-67 – Col. 15, Line 13, see Fig. 23; Col. 17, Lines 19-24);

wherein when recovery of frame synchronization is detected, the memory address to which data is stored is determined based on the predicted frame recording position (Col. 4, Lines 27-36; Col. 17, Lines 55-59; Col. 18, Lines 19-24).

6. Regarding claims 3 and 9, Ichikawa discloses the data memory address in memory is determined with the frame as the smallest recordable unit (Col. 4, Lines 42-50).

7. Regarding claim 4, Ichikawa discloses the block address information is recorded to the recording medium in a format different from the data recording format (Col. 10, Lines 39-49, see Fig. 11).

8. Regarding claims 5-6, 11, 17 and 23, Ichikawa discloses a playback method for reproducing data from a recording medium to which is recorded modulated frame data and a specific synchronization code prepended to the beginning of the modulated frame data (sync header(Col. 1, Lines 61-64), the modulated frame data being error correction coded data segmented into multiple frame data blocks of a specific length and then modulated (Col. 1, Lines 43-55), the playback method consisting steps of:

acquiring signals from the recording medium (Col. 1, Lines 43-45);

acquiring a detection result of synchronization code by detecting frame synchronization codes from the acquired signals (Col. 1, Lines 48-51);

correcting frame synchronization based on the result for detection of acquired synchronization code (Col. 1, Lines 51-53);

generating a result information for detection of synchronization code coded according to specific rules from the detection result of synchronization code (Col. 2, Lines 1-6);

demodulating the modulated frame data for each frame and generating demodulated frame data (Col. 1, Lines 56-58); and

adding the result information for detection of synchronization code for each frame to the corresponding demodulated frame data (Col. 10, Line 66 – Col. 10, Line 38).

9. Regarding claims 12 and 18, Ichikawa discloses an erasure pointer generating step for generating an erasure pointer for erasure correction based on the demodulated frame data using the corresponding result information for detection of synchronization code (Col. 3, Lines 17-22; Col. 8, Lines 64-67; Col. 9, Lines 38-43); and

an error correcting step for erasure correcting error correcting code from multiple demodulated frame data blocks using the erasure pointers for the demodulated frame data (Col. 8, Lines 63).

10. Regarding claims 13 and 19, Ichikawa discloses a memory step for storing the result information for detection of synchronization code and corresponding demodulated frame data in different memory areas with a known correlation therebetween (Col. 4, Lines 27-36).

11. Regarding claims 14 and 20, Ichikawa discloses wherein the result information for detection of synchronization code is coded to differentiate between at least the three detection results of "normal detection" when the synchronization code is detected normally, "undetected" when the synchronization code is not detected, and "out-of-step synchronization" when a next synchronization code is detected at a timing offset from a timing predicted from the timing of the detection result for the previously detected synchronization code (Col. 14, Line 47-67 – Col. 15, Line 13; see Fig. 23; Col. 17, Lines 19-24).

12. Regarding claims 15 and 21, Ichikawa discloses when the frame synchronization step corrects delay in which a new synchronization code is detected earlier than the timing predicted from the timing of the detection result of the previously detected synchronization code and the synchronization delay is less than one frame, the memory step corrects the memory address of the frame data immediately after synchronization delay correction to an address derived by skipping an amount equivalent to the synchronization delay correction, and stores the frame data to the corrected address (Col. 17, Lines 55-59; Col. 18, Lines 19-24).

13. Regarding claims 16 and 22, Ichikawa discloses when the frame synchronization step corrects synchronization delay in which a new synchronization code is detected earlier than the timing predicted from the timing of the detection result of the previously detected synchronization code and the synchronization delay is less than one frame, the memory step corrects the memory address of the frame data immediately after synchronization delay correction to an address derived by skipping an amount equivalent to the synchronization delay correction, and stores the frame data to the corrected address; and the erasure pointer generating step determines that result information for detection of synchronization code that is skipped and not stored to memory was undetected, and generates an erasure pointer thereto (Col. 19, Lines 54-57).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Markvoort *et al.* (US 4,802,152) disclose a compact drive apparatus having an interface for transferring data and commands to and from a host controller.

Kobayashi *et al.* (US 2006/0098558) disclose a disc-shaped recording medium including defect management areas.

Takagi *et al.* (US 6,314,078) disclose a recording defect substitution method for a disc-shaped recording medium.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on (571) 272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MR 10/01/06

WAYNE YOUNG
SUPERVISORY PATENT EXAMINER